

REMARKS

Claims 1-20 are all the claims pending in the application.

Claims 9-15 are allowed and claims 2-4 and 6-8 contain allowable subject matter. The only rejected claims are claims 1, 5, and 16-20.

In particular, the Examiner rejected claims 1, 5, and 16-20 under 35 U.S.C. § 103(a) as being unpatentable over Applicant's admitted prior art (hereinafter "APA") in view of U.S. Patent No. 6,400,712 to Phillips (hereinafter "Phillips"). Applicant respectfully traverses this rejection and respectfully requests the Examiner to reconsider in view of the following comments.

Of the rejected claims, only claims 1 and 5 are independent. Independent claim 1 recites:

a method for forwarding internet packets from a host connected to an internet towards **a destination host connected to a privately addressable internet network**, where said internet network and said privately addressable internet network are coupled through at least one edge router, and where said destination host is assigned a global Internet address, including **forwarding of said internet packets from one of said at least one edge router towards said destination host based only on said global internet address**, emphasis added.

The Examiner acknowledges that the APA does not teach or suggest forwarding towards the destination host based only on the global internet address as set forth in claim 1. The Examiner, however, alleges that Phillips cure the deficient teachings of the APA (see page 3 of the Office Action).

In particular, the Examiner alleges that the conventional TCP/IP protocol is equivalent to forwarding from the edge router to the destination host based only on global internet address as set forth in claim 1. Applicant has carefully studied Phillips teaching of the conventional protocol and Applicant respectfully submits that Phillips fails to teach or suggest forwarding from the edge router to the destination host of a privately addressable network based only on the global internet address, as set forth in claim 1.

The point that the Examiner repeatedly fails to appreciate is that the claim requires that the destination host be connected to a privately addressable network. In a private network, the stations typically do not share the same numbering plan as the rest of the Internet; that is to say, the stations on the private network typically have their own internal Internet addresses, and the edge router typically performs some kind of network address translation so as to interface the stations of the private network with the rest of the Internet. In the present invention, however, the internet packets are forwarded from the edge router towards the destination host (through the private network) based only on the global internet address.

First, Applicant respectfully submits that the Examiner is exercising impermissible hindsight in an attempt to somehow meet the claim features. “[O]bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination” In re Geiger, 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987) (citing ACS Hosp. Sys. v. Montefiore Hosp., 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984)).

A critical step in analyzing the patentability of claims pursuant to section 103(a) is *casting the mind back to the time of invention*, to consider the thinking of one of ordinary skill in the art, guided only by the prior art references and the then-accepted wisdom in the field. *See In re Kotzab*, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000) (*citing In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999)). Close adherence to this methodology is especially important in cases where the very ease with which the invention can be understood may prompt one “to fall victim to the insidious effect of a hindsight syndrome *wherein that which only the invention taught is used against its teacher.*” *Kotzab*, 55 USPQ2d at 1316 (*quoting W.L. Gore & Assocs., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 313 (Fed. Cir. 1983)).

Hindsight has repeatedly been held to be improper and ineffective in supporting an argument of *prima facie* obviousness. *See, e.g., In re Fritch*, 23 USPQ2d 1780 (Fed. Cir. 1992); *In re Bond*, 15 USPQ2d 1556 (Fed. Cir. 1990); *In re Laskowski* 10 USPQ2d 1397 (Fed. Cir. 1989). On the present record, the Examiner is exercising impermissible hindsight in an attempt to meet the unique features of claim 1. That is, *for motivation to combine, the Examiner turns to Applicant’s recognition of the problem set forth in the specification on pages 1-2*. It is the Applicant, however, that recognized this problem and it is the Applicant who found a possible solution as disclosed in the specification. The Examiner is using Applicant’s invention against the Applicant. That is, the Examiner is exercising impermissible hindsight.

“[A] patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. This is part of

the 'subject matter as a whole' which should always be considered in determining the obviousness of an invention under 35 U.S.C. § 103." *In re Spinnoble*, 405 F.2d 578, 585, 160 USPQ 237, 243 (CCPA 1969); MPEP § 2141.02. But for the present invention and the problem disclosed therein, there is no motivation to combine the references in the manner suggested by the Examiner. Applicant respectfully requests that the Examiner withdraw this rejection or reject the claims without the benefit of Applicant's disclosure, *i.e.*, without impermissible hindsight reconstruction. Understood without recourse to Applicant's disclosure, one of ordinary skill in the art would not have been motivated to combine the APA and Phillips in the manner suggested by the Examiner.

Moreover, the combined teachings of the APA and Phillips fail to teach or suggest the unique features set forth in claim 1. Phillips is no different from the APA discussed in Applicant's specification, where private IP addresses are used within an end system to enable TCP communication and global IP addresses are using for connecting the private host to the internet, *i.e.*, the IP communication protocol (see page 1, second full paragraph of the specification).

The Examiner alleges that col. 2, lines 21 to 32 of Phillips teach the unique feature of forwarding packets from the edge router to the destination host of a privately addressable network based only on the global internet address. Col. 2, lines 21 to 32 recite:

Two levels of addressing are typically used in protocol suites such as TCP/IP. The first specifies the global internetwork (IP) address of a given host on a network, typically a 32-bit word. The second is unique within the host; *i.e.*, it allows the host-to-host protocol (such as TCP)

to deliver data to the proper application within a given host entity. This second address is commonly known as a port. Systems running TCP/IP typically have what is known as a kernel or internet routing table consisting of a series of entries, each entry containing multiple data fields. These fields include the destination IP address, a network mask, network "hopping" address (i.e., the next machine which knows how to reach the ultimate destination of the data message), and the identity of the network interface device through which the datagram(s) must be sent to reach the next hop. Routing "daemons" initialize and dynamically update the kernel routing table by communicating with comparable entities in other systems to exchange routing information, emphasis added.

As is visible from the passage above, Phillips only teaches a conventional TCP/IP protocol. In Phillips, there is no teaching or suggestion of forwarding packets in a private network using only the global IP address. On the contrary, Phillips teaches using TCP communication within the host for host-to-host communication. That is, just like in the conventional techniques, TCP protocol is used for communication within a network, for delivery through the network. Furthermore, IP protocol is used for delivery through an internet to the TCP module of the entity of the other network. In other words, Phillips teaches a conventional technique of using TCP (unique addresses within a network) for communicating within a given host entity (col. 1, line 61 to col. 2, line 2). In short, Phillips fails to teach or suggest using only the global internet address within a privately addressable network.

Phillips further teaches using daemons to initialize and update "the kernel routing table".

In Phillips, however, there is no indication or suggestion that the daemon is used in the private network to notify the routers of the privately addressable network of the global internet address

of the destination host. In sum, Phillips only teaches a conventional technique of using IP address between systems, TCP (internal addresses) within the end systems, and updating the kernel routing table using a daemon and not forwarding a packet within a privately addressable network based only on the global internet address of the destination.

Therefore, forwarding packets from the edge router to the destination host of a privately addressable network based only on the global internet address is not taught or suggested by the combined teachings of the APA and Phillips, which lack using only the global internet address of the destination host in the privately addressable network. Moreover, the Examiner is exercising impermissible hindsight in an attempt to somehow meet the unique features of claim 1. For at least these exemplary reasons, claim 1 is patentable over the combined teachings of the APA and Phillips. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection of claim 1. Claims 16-18 are patentable at least by virtue of their dependency on claim 1.

Claim 5 recites features similar to the features argued above with respect to claim 1, namely “a destination host connected to a privately addressable internet network...[and] a forwarding means, adapted to route said internet packets from one of said at least one edge router towards said destination host based only on said global internet address.” Since claim 5 recite features similar to the features argued above with respect to claim 1, analogous arguments are submitted to apply with equal force here. For at least substantially analogous reasons, therefore, claim 5 is patentable over the combined teachings of the APA and Phillips. Therefore it is appropriate and necessary for the Examiner to withdraw this rejection of claim 5. Claims 19 and 20 are patentable at least by virtue of their dependency on claim 5.

Amendment under 37 C.F.R. § 1.111
U.S. Application No. 09/348,575

Attorney Docket No. Q55017

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. **If any points remain in issue, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.**

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

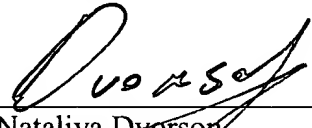
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Respectfully submitted,


Nataliya Dvorson
Registration No. 56,616

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